

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112802 A1

- (51) International Patent Classification⁷: **A61K 31/716** (74) Agent: SHIN, Dong In; 304, DUKAM Building, 1457-2, Seocho3-dong, Seoch-gu, Seoul 137-867 (KR).
- (21) International Application Number:
PCT/KR2004/001515 (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 23 June 2004 (23.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10-2003-0040535 23 June 2003 (23.06.2003) KR
- (71) Applicant (*for all designated States except US*): EN-BIO TECHNOLOGY CO., LTD. [KR/KR]; 74, Chosa-dong, Asan-si, Chungcheongnam-do 336-090 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): MOON, Won Kook [KR/KR]; 9-1101, Woosung Apt., 42, Myeongil-dong, Gangdong-gu, Seoul 134-787 (KR). KIM, Dong Woo [KR/KR]; 103-2202, Donga buram Apt., 1285, Sanggye-dong, Nowon-gu, Seoul 139-899 (KR). PARK, Jeong Hoon [KR/KR]; 514-1302, Songgangchungsol Apt., Songgang-dong, Yuseong-gu, Daejeon 305-752 (KR). CHUNG, Bong Hyun [KR/KR]; 113-607, Nuri Apt., Wolpyeong-dong, Seo-gu, Daejeon 302-280 (KR).
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— *with international search report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: COMPOSITION COMPRISING SOLUBLE GLUCAN OLIGOMER FROM SACCHAROMYCES CEREVISIAE IS2 INHIBITING THE SWINE INFLUENZA (SIV) AND TRANSMISSIBLE GASTROENTERITIS CORONAVIRUS (TGEV)

(57) Abstract: The present invention relates to the soluble glucan oligomer having a M.W. ranging from 1,000 to 10,000 prepared by treating insoluble beta-glucan isolated the cell wall of yeast variant IS2 with commercially available beta-glucan hydrolyzing enzymes. The soluble glucan oligomer showed potent efficacy on inhibiting activity of influenza virus and transmissible gastroenteritis coronavirus, therefore, it can be used as the therapeutics or health care food for treating and preventing mammal's diseases caused by the infection of influenza virus and transmissible gastroenteritis coronavirus.



WO 2004/112802 A1